ENT COOPERATION TREA

·	From the INTERNATIONAL BUREAU		
PCT	To:		
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422)	POSORSKE, Laurence, H. Brobeck, Phleger & Harrison LLP Intellectual Property Department 1333 H Street, N.W., Suite 800 Washington, D.C. 20005 ETATS-UNIS D'AMERIQUE		
Date of mailing (day/month/year) 22 novembre 2001 (22.11.01)			
Applicant's or agent's file reference 061308.0356	IMPORTANT NOTIFICATION		
International application No. PCT/US00/07989	International filing date (day/month/year) 27 mars 2000 (27.03.00)		
1. The following indications appeared on record concerning: the applicant the inventor	the agent the common representative		
Name and Address POSORSKE, Laurence, H.	State of Nationality State of Residence		
Baker Botts, LLP 1299 Pensylvania Ave., N.W.	Telephone No. 202 220 6000		
Washington, D.C. 20004 United States of America	Facsimile No.		
	202 220 5200		
·	Teleprinter No.		
2. The International Bureau hereby notifies the applicant that the	he following change has been recorded concerning:		
the person the name X the add	dress the nationality the residence		
Name and Address	State of Nationality State of Residence		
POSORSKE, Laurence, H. Brobeck, Phleger & Harrison LLP	Telephone No.		
Intellectual Property Department 1333 H Street, N.W., Suite 800	202 220 6000		
Washington, D.C. 20005 United States of America	Facsimile No.		
Sinica States Stylinonia	202 220 5200		
	Teleprinter No.		
3. Further observations, if necessary:			
4. A copy of this notification has been sent to:			
X the receiving Office	the designated Offices concerned		
the International Searching Authority	X the elected Offices concerned		
the International Preliminary Examining Authority	other:		
The International Bureau of WIPO	Authorized officer		
34, chemin des Colombettes	Y. KUWAHARA		
1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38		

Form PCT/IB/306 (March 1994)

1514 1

004480324

PATENT COOPERATION TREATY

• -	From the INTERNATIONAL	BUREAU
	To:	

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202

Date of mailing (day/month/year)

O1 December 2000 (01.12.00)

International application No.

PCT/US00/07989

ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Applicant's or agent's file reference
061308.0356

International filing date (day/month/year) 27 March 2000 (27.03.00)

Priority date (day/month/year) 26 March 1999 (26.03.99)

Applicant

ALLNUTT, Thomas, F., C. et al

	X in the demand filed with the International Preliminary Examining Authority on:
	23 October 2000 (23.10.00)
	in a notice effecting later election filed with the International Bureau on:
•	The election X was was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland **Authorized officer**

Maria Kirchner

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

REC'D 29 OCT 2001

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

			a manufacture of International
Applicant's or agent's file reference	FOR FURTHER ACTION	See Notifi Preliminary	cation of Transmittal of International Examination Report (Form PCT/IPEA/416)
062308.0356	International filing date (day/m	onth/year)	Priority date (day/month/year)
International application No.	27 MARCH 2000		26 MARCH 1999
PCT/US00/07989 International Patent Classification (IPC)		c	
International Patent Classification (FC) Please See Supplemental Sheet.			
Applicant MARTEK BIOSCIENCES CORPORA	TION	•	
MARIER BIOGRAM			
This international prelimin Examining Authority and is	ary examination report has transmitted to the applicant	been prepared to	ared by this International Preliminary Article 36.
THE PROPERTY AND ADDITION OF A	total of 4 sheets.		
This report is also accor been amended and are to see Rule 70.16 and Se	npanied by ANNEXES, i.e., she he basis for this report and/or sl ction 607 of the Administrative	eets of the des neets contain Instructions	scription, claims and/or drawings which have ing rectifications made before this Authority under the PCT).
These annexes consist of a	total of sheets.		
3. This report contains indication	ons relating to the following	items:	•
I X Basis of the rep			
II Priority			
III Non-establishment of report with regard to novelty, inventive step or industrial applicability			
IV Lack of unity	I look of unity of invention		
V X Reasoned staten citations and ex	Article 35(2) with regard to novelty, inventive step or industrial applications		
VI Certain documer	a land a state of the state of		
VII Certain defects i	VII Certain defects in the international application		
VIII Certain observat	VIII Certain observations on the international application		
Date of submission of the demand			etion of this report.
23 OCTOBER 2000	• /	17 SEPTE	MBER 2001
Name and mailing address of the IP	EA US	Authorized of	to 12 ridges for
Commissioner of Patents and T	rademarks	LISA V.	соок — ()
Washington, D.C. 20231	1	relephone No	. (703)305-1235
Facsimile No. (703) 305-3230			



International application No.

PCT/US00/07989

I. B	asis of the	report				
1. With	regard to the	e elements of the interna	tional application:	*		
x		ational application as				
	the descrip					
X	pages				, as originally filed	
	pages	NONE			, filed with the demand	
	pages			, filed with the letter of _		
	the claims	. .				
X	pages				, as originally filed	i
	pages			, as amended (together wit	th any statement) under Article 19	•
	pages	NONE			, filed with the demand	
	pages		, filed with	h the letter of		-
	49					
X	the drawin	NONE			, as originally filed	
	pages				, filed with the demand	
	pages				, , , , , , , , , , , , , , , , , , , ,	
	pages					
x		nce listing part of the d	lescription:			
		NONE			, as originally filed	
	pages	NONE			, filed with the demand	ı
	pages	NONE		, filed with the letter of		
	the langua	age of publication of	the internation	al application (under Rule 4		. د
	the languag or 55.3).	ge of the translation fun	nished for the p	urposes of international prelimi	inary examination (under Rules 55.2 a	ind
3. W	ith regard to eliminary ex	any nucleotide and/o xamination was carried	or amino acid s	equence disclosed in the intersis of the sequence listing:	ernational application, the internation	ıal
	contained	in the international a	application in p	orinted form.		
				on in computer readable for	rm.	
		subsequently to this				
	1	•		omputer readable form.		
	l The stater	-	ntly furnished v	vritten sequence listing does	not go beyond the disclosure in the	į.
		nent that the information			ical to the writen sequence listing has	
4. X	٦	ndments have resulted	d in the cancel	lation of:		
]	X the	description, pages	NONE		•	
		claims, Nos.	NONE	<u>•</u>		
		drawings, sheets/fig	NONE			
5.	This repor	rt has been drawn as if ((some of) the am	endments had not been made,	since they have been considered to go)
in in	beyond the placement she this report a	he disclosure as filed, as	indicated in the	Supplemental Box (Rule 70.2)	(c)).** vitation under Article 14 are - referred t not contain amendments (Rules 70.16	to
	d 70.17). v renlaceme	ent sheet containing sucl	h amendments m	ust be referred to under item.	1 and annexed to this report.	



International application No.

PCT/US00/07989

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability
	citations and explanations supporting such statement

1.	statement			
	Novelty (N)	Claims	NONE	YES
		Claims	1-20	NO
	Inventive Step (IS)	Claims	NONE	YES
	• • •	Claims	1-20	NO
	Industrial Applicability (IA)	Claims	1-20	YES
		Claims	NONE	NO

2. citations and explanations (Rule 70.7)

I. Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Xu et al. (The Journal of Biological Chemistry, 1996)

Xu et al. disclose the ligand binding properties of BLBP (brain lipid-binding protein). Docosahexaenoic acid (DHA) is shown to be a ligand for BLBP. Wherein the binding affinity between the two is the highest yet reported for an fatty acid binding protein/ligand interaction. See abstract.

Although the references is silent with respect to kit configurations such limitations are inherent in the reference because it discloses all the reagents and/or materials recited in the kit claims.

II. Claims 1-12 and 19-20 lack an inventive step under PCT Article 33(3) as being obvious over Plotter et al. (U.S. 4,943,527) or ANDERS LIMITED (WO 98/03159) in view of Lee et al. (Investigative Ophthalmology & Visual Science, 1995).

Plotter et al. disclose methods of purifying lipid-binding proteins (peptide), including fused recombinant proteins that can bind phospholipid. The researchers found that the addition of either endogenous or exogenous lipids to the peptide mixture forms a lido-peptide complex composed of lipid and the lipid-binding proteins. Abstract, Figure 1, and Column 1.

ANDERS LIMITED also disclose the purification and utility of lipid binding proteins including fatty acids are use in therapeutic and diagnostic processes.

Plotter et al. and ANDERS LIMITED differ from the instant invention in not teaching the utility of the binding proteins in DHA detection.

However, Lee et al. teach that fatty acid binding proteins (FABP) bind docosahexaenoic acid (DHAT.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to detect DHA as taught by (Continued on Supplemental Sheet.)



International application No.

PCT/US00/07989

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(7): G01N 33/92, 33/577; C07K 16/18; C12N 5/18, and US Cl.: 435/4, 5, 6, 7, 7.1, 7.21, 69.6, 968, 805; 436/69, 166, 169, 170; 530/387.1, 387.3, 387.9, 388.1, 388.15, 388.85, 388.26, 350, 432, 412

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

Lee et al. with the purified protein ligands found in the methods of Plotter et al. or ANDERS LIMITED because such techniques were widely known.

Absent results to the contrary or unexpected results the modification is viewed as an obvious modification that does not render the claims distinct from patent no. 5,872,014.

III. Claims 13-18 lack an inventive step under PCT Article 33(3) as being obvious over Plotter et al. (U.S. 4,943,527) or ANDERS LIMITED (WO 98/03159) in view of Lee et al. (Investigative Ophthalmology & Visual Science, 1995) and in further view of Zuk et al. (U.S. 4,281,061).

The teachings of Plotter et al. or ANDERS LIMITED in view of Lee et al. are set forth above. However, these references fail to teach the assay as a kit.

Zuk et al. teach that "as a matter of convenience the reagents [of an immunoassay] can be provided as kits, where the reagents are in predetermined ratios, so as to substantially optimize the sensitivity of the assay in the range of interest" (column 22, lines 63-66). It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to take the DHA detection assay as taught by Plotter et al. or ANDERS LIMITED in view of Lee et al. and format them into a kit because Zuk et al. teach that it is convenient to do so and one can enhance sensitivity of a method by providing reagents as a kit. Further, the reagents in a kit are available in pre measured amounts which eliminates the variability that can occur when performing the assay.

occur when performing the assay.
Database BIOSIS on STN, AN 1995:200717. LEE et al. 'Cultured monkey pigment epithelial (PE) cells contain a fatty acid binding protein (FABP) that binds docosahexaenoic acid (DHa.' Investigative Ophthalmology & Visual Science. 1995, Vol. 36, No. 4, page S138.

International application No. PCT/US00/07989

1 CI	ASSIDICATION OF SUBJECT MARROW				
A. CLASSIFICATION OF SUBJECT MATTER IPC(7) :G01N 33/92, 33/577; C07K 16/18; C12N 5/18.					
US CL :Please See Extra Sheet. According to International Patent Classification (IPC) or to both national classification and IPC					
1	LDS SEARCHED	our national classification and IPC			
Minimum	documentation searched (classification system follo	wed by classification symbols)			
U.S. :	435 4,5,6,7,7.1,7.21,69.6,968,805,436 69,166,169,1		8.85,388.26,350,432,412		
East / W	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched East / West patent database				
Electronic of STN-bios	data base consulted during the international search ((name of data base and, where practicable	e, search terms used)		
C. DOC	CUMENTS CONSIDERED TO BE RELEVANT		<u> </u>		
Category*	Citation of document, with indication, where a	appropriate, of the relevant passages	Relevant to claim N		
X	XU, L.Z. et al. Ligand Specificity of Journal of Biological Chemistry. 19 24711-24719, see entire document.	of Brain Lipid-binding Protein. 96, Vol. 271, No. 40, pages	1-20		
Y	US 5,777,141 A (BRUNNER et al) 07 July 1998, see entire document.				
Y	US 5,550,156 A (KYLE) 27 August 1996, see entire document. 1-13				
Y	US 5,397,591 A (KYLE et al) 14 March 1995, especially col 6. 1-13				
Y	WO 98/03159 A2 (ANDARIS LIMITED) 29 January 1998, see entire document				
·					
X Furthe	er documents are listed in the continuation of Box (C. See patent family annex.			
A* docu	cial categories of cited documents. ument defining the general state of the art which is not considered e of particular relevance	"T" later document published after the inter- date and not in conflict with the appli- the principle or theory underlying the	between to bate out and reutend		
L* docu	ier document published on or after the international filing date iment which may throw doubts on priority claim(s) or which is to establish the publication date of another citation or other	"X" document of particular relevance; the considered novel or cannot be consider when the document is taken alone	claimed invention cannot be ed to involve an inventive step		
special reason (as specified) O* document of particular relevance; the claimed invention can considered to involve an inventive step when the documents of means document of particular relevance; the claimed invention can considered to involve an inventive step when the documents of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance; the claimed invention can considered to involve an inventive attainment of particular relevance.			step when the document is		
document published prior to the international filing date but later than -g. document member of the same patent family			j		
Date of the actual completion of the international search Date of mailing of the international search			ch repoπ		
17 MAY 20	000	2 1 JUN 2000			
Box PCT	ailing address of the ISA/US or of Patents and Trademarks	DARAI FGA	BRIDGERS L SPECIALIST		
Washington, acsimile No.	•	CHEMIC	A) MATRIX		
	(103) 303-3230	Telephone No. (703)305-1235	40°Y) (4° 1		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/07989

	NTS CONSIDERED TO BE RELEVANT	
Category* Citation of de	ocument, with indication, where appropriate, of the relevant passage	s Relevant to cla
Y US 4,943,52° document.	7 A (PROTTER et al) 24 July 1990, see entire	1-13
Y US 4,281,061	l A (ZUK et al) 28 July 1981, see entire document.	14-20
·		

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: LAURENCE H. POSORSKE BROBECK, PHLEGER & HARRISON LLP 1333 H STREET, N.W. SUITE 800 WASHINGTON, D.C. 20005

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

(PCT Rule 71.1)

Date of Mailing (day/month/year)

24 OCT 2001

Applicant's or agent's file reference 062308.0356

International application No.

International filing date (day/month/year)

Priority Date (day/month/year)

PCT/US00/07989

27 MARCH 2000

26 MARCH 1999

IMPORTANT NOTIFICATION

Applicant

MARTEK BIOSCIENCES CORPORATION

- The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the 1. international preliminary examination report and its annexes, if any, established on the international application.
- A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication 2. to all the elected Offices.
- Where required by any of the elected Offices, the International Bureau will prepare an English translation of 3. the report (but not of any annexes) and will transmit such translation to those Offices.

REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

LISA

3 ridges, COOK (703)305-1235

Porm PCT/IPEA/416 (July 1992) *



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

citations and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand 23 OCTOBER 2000 Date of completion of this report 23 OCTOBER 2000	Applicant's or agent's file reference 062308.0356	FOR FURTHER ACTION	CTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)		
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet. Applicant MARTEK BIOSCIENCES CORPORATION 1. This international preliminary examination report has been prepared by this International Prelimin Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of sheets. This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheets. 3. This report contains indications relating to the following items: 1	International application No.	International filing date (day/n	nonth/year) Priority date (day/month/year)		
Please See Supplemental Sheet. Applicant MARTEK BIOSCIENCES CORPORATION 1. This international preliminary examination report has been prepared by this International Prelimin Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of sheets. This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which been amended and are the basis for this report and/or sheets containing rectifications made before this Autl (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheets. 3. This report contains indications relating to the following items: I Basis of the report II Priority III Non-establishment of report with regard to novelty, inventive step or industrial applicability IV Lack of unity of invention V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applications and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand Date of completion of this report	PCT/US00/07989	27 MARCH 2000	2000 26 MARCH 1999		
1. This international preliminary examination report has been prepared by this International Prelimin Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of	Please See Supplemental Sheet.	or national classification and IP	C		
Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of	MARTEK BIOSCIENCES CORPORA	.TION			
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which been amended and are the basis for this report and/or sheets containing rectifications made before this Auth (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of	Examining Authority and is	s transmitted to the applicant a	been prepared by this International Preliminary according to Article 36.		
been amended and are the basis for this report and/or sheets containing rectifications made before this Auth (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of	2. This REPORT consists of a	total of 4 sheets.			
3. This report contains indications relating to the following items: I X Basis of the report II Priority III Non-establishment of report with regard to novelty, inventive step or industrial applicability IV Lack of unity of invention V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applications and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand Date of completion of this report 13 SEPTEMBER 2001	been amended and are the (see Rule 70.16 and Sec	he basis for this report and/or she tion 607 of the Administrative	eets containing rectifications made before this Authority		
I	These annexes consist of a t	otal of sheets.			
II Priority III Non-establishment of report with regard to novelty, inventive step or industrial applicability IV Lack of unity of invention V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applications and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand Date of completion of this report 23 OCTOBER 2000	3. This report contains indicatio	ns relating to the following it	ems:		
III Non-establishment of report with regard to novelty, inventive step or industrial applicability IV Lack of unity of invention V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applications and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application VIII September 2001	I X Basis of the repo	ort			
IV	II Priority				
V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applications and explanations supporting such statement VI Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand Date of completion of this report 23 OCTOBER 2000 12 SEPTEMBER 2001	III Non-establishme	nt of report with regard to no	velty, inventive step or industrial applicability		
Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application VIII Date of submission of the demand Date of completion of this report 23 OCTOBER 2000 17 SEPTEMBER 2001					
VII Certain defects in the international application VIII Certain observations on the international application Date of submission of the demand Date of completion of this report 23 OCTOBER 2000 17 SEPTEMBER 2001	V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;				
VIII Certain observations on the international application Date of submission of the demand Date of completion of this report 23 OCTOBER 2000 12 SEPTEMBER 2001	VI Certain documents cited				
Date of submission of the demand 23 OCTOBER 2000 Date of completion of this report 12 SEPTEMBER 2001	VII Certain defects in the international application				
23 OCTOBER 2000 17 SEPTEMBER 2001	VIII Certain observations on the international application				
23 OCTOBER 2000 17 SEPTEMBER 2001					
23 OCTOBER 2000 17 SEPTEMBER 2001					
23 OCTOBER 2000 17 SEPTEMBER 2001					
23 OCTOBER 2000 17 SEPTEMBER 2001					
23 OCTOBER 2000 17 SEPTEMBER 2001					
	Date of submission of the demand	Date	of completion of this report		
Name and mailing address of the IDDA/IIC	23 OCTOBER 2000	T.	SEPTEMBER 2001		
	Name and mailing address of the IPEA		orized stiffer Is undallo for		
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231					
Facsimile No. (703) 305-3230 Telephone No. (703)305-1235					



International application No.

PCT/US00/07989

I. B	asis of the report	
1 Wit	h regard to the elements of the international application:*	
	1	
X	the description:	
X		, as originally filed
	pages 1-25 nages NONE	, to originally mod
	pages NONE , filed with the letter	ter of
	pages, med with the let	
X	the claims:	
لغنا	pages	, as originally filed
	pages NONE , as amended (toget	ther with any statement) under Article 19
	pages NONE	, filed with the demand
	pages NONE , filed with the letter of	
·	La La Caracteria de la Car	
X		as originally filed
		, as originally filed
	pages NONE , filed with the lette	1 01
Tv.	the sequence listing part of the description:	
X	pagesNONE	, as originally filed
	pagesNONE	, filed with the demand
	pages NONE , filed with the letter	er of
	the language of publication of the international application (under the language of the translation furnished for the purposes of international	
	or 55.3).	
3. W	Tith regard to any nucleotide and/or amino acid sequence disclosed in reliminary examination was carried out on the basis of the sequence l	the international application, the international isting:
	contained in the international application in printed form.	
	filed together with the international application in computer read	able form.
	furnished subsequently to this Authority in written form.	
	furnished subsequently to this Authority in computer readable fo	
	The statement that the subsequently furnished written sequence listing international application as filed has been furnished.	ng does not go beyond the disclosure in the
	The statement that the information recorded in computer readable form been furnished.	is identical to the writen sequence listing has
4. X	The amendments have resulted in the cancellation of:	
	X the description, pages NONE	
	X the claims, Nos. NONE	
	X the drawings, sheets/fig NONE	
5.	This report has been drawn as if (some of) the amendments had not bee	n made, since they have been considered to go
	beyond the disclosure as filed, as indicated in the Supplemental Box (R	tule 70.2(c)).**
in an	placement sheets which have been furnished to the receiving Office in response this report as "originally filed" and are not annexed to this report since ad 70.17).	to an invitation under Article 14 are referred to they do not contain amendments (Rules 70.16
**A	ny replacement sheet containing such amendments must be referred to unc	der item 1 and annexed to this report.



International application No.

PCT/US00/07989

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
	citations and explanations supporting such statement

1.	statement			
	Novelty (N)	Claims	NONE	YES
		Claims	1-20	NO
	Inventive Step (IS)	Claims	NONE	YES
	• • •	Claims	1-20	NO
	Industrial Applicability (IA)	Claims	1-20	YES
		Claims	NONE	NO

2. citations and explanations (Rule 70.7)

I. Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by Xu et al. (The Journal of Biological Chemistry, 1996)

Xu et al. disclose the ligand binding properties of BLBP (brain lipid-binding protein). Docosahexaenoic acid (DHA) is shown to be a ligand for BLBP. Wherein the binding affinity between the two is the highest yet reported for an fatty acid binding protein/ligand interaction. See abstract.

Although the references is silent with respect to kit configurations such limitations are inherent in the reference because it discloses all the reagents and/or materials recited in the kit claims.

II. Claims 1-12 and 19-20 lack an inventive step under PCT Article 33(3) as being obvious over Plotter et al. (U.S. 4,943,527) or ANDERS LIMITED (WO 98/03159) in view of Lee et al. (Investigative Ophthalmology & Visual Science, 1995).

Plotter et al. disclose methods of purifying lipid-binding proteins (peptide), including fused recombinant proteins that can bind phospholipid. The researchers found that the addition of either endogenous or exogenous lipids to the peptide mixture forms a lido-peptide complex composed of lipid and the lipid-binding proteins. Abstract, Figure 1, and Column 1.

ANDERS LIMITED also disclose the purification and utility of lipid binding proteins including fatty acids are use in therapeutic and diagnostic processes.

Plotter et al. and ANDERS LIMITED differ from the instant invention in not teaching the utility of the binding proteins in DHA detection.

However, Lee et al. teach that fatty acid binding proteins (FABP) bind docosahexaenoic acid (DHA).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to detect DHA as taught by (Continued on Supplemental Sheet.)



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PCT/US00/07989

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(7): G01N 33/92, 33/577; C07K 16/18; C12N 5/18, and US C1.: 435/4, 5, 6, 7, 7.1, 7.21, 69.6, 968, 805; 436/69, 166, 169, 170; 530/387.1, 387.3, 387.9, 388.1, 388.15, 388.85, 388.26, 350, 432, 412

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

Lee et al. with the purified protein ligands found in the methods of Plotter et al. or ANDERS LIMITED because such techniques were widely known.

Absent results to the contrary or unexpected results the modification is viewed as an obvious modification that does not render the claims distinct from patent no. 5,872,014.

III. Claims 13-18 lack an inventive step under PCT Article 33(3) as being obvious over Plotter et al. (U.S. 4,943,527) or ANDERS LIMITED (WO 98/03159) in view of Lee et al. (Investigative Ophthalmology & Visual Science, 1995) and in further view of Zuk et al. (U.S. 4,281,061).

The teachings of Plotter et al. or ANDERS LIMITED in view of Lee et al. are set forth above. However, these references fail to teach the assay as a kit.

Zuk et al. teach that "as a matter of convenience the reagents [of an immunoassay] can be provided as kits, where the reagents are in predetermined ratios, so as to substantially optimize the sensitivity of the assay in the range of interest" (column 22, lines 63-66). It would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to take the DHA detection assay as taught by Plotter et al. or ANDERS LIMITED in view of Lee et al. and format them into a kit because Zuk et al. teach that it is convenient to do so and one can enhance sensitivity of a method by providing reagents as a kit. Further, the reagents in a kit are available in pre measured amounts which eliminates the variability that can occur when performing the assay.

Database BIOSIS on STN, AN 1995:200717. LEE et al. 'Cultured monkey pigment epithelial (PE) cells contain a fatty acid binding protein (FABP) that binds docosahexaenoic acid (DHa.' Investigative Ophthalmology & Visual Science. 1995, Vol. 36, No. 4, page S138.